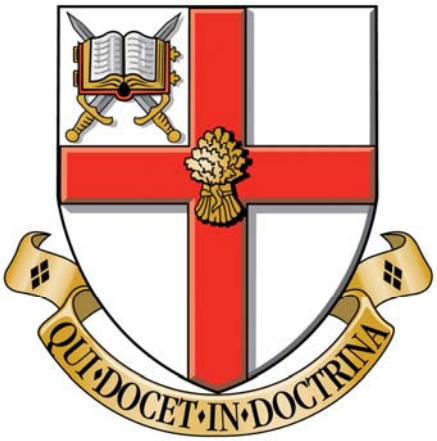

University of Chester

4

THE NATURAL HISTORY OF THE COLLEGE CAMPUS

Bruce Ing

As may be seen from Clifford Hargreaves' essay on the development of the campus there have been continuous, and often, dramatic, changes in the layout of buildings, open land and trees. This is reflected in the variety of habitats available to wildlife at different times.

We can divide the campus into five types of habitat — the buildings, the gardens, the trees, the sports fields and the marginal areas of disturbed or undeveloped land.

The Buildings

Being of different ages and materials the various blocks and houses have attracted to their surfaces mosses and a few lichens, although Chester's air is not pure enough for much lichen growth. These occur mainly on the mortar of sandstone and brick walls, but also on asbestos roofs, such as Gladstone Hall, and the reinforced concrete of the Aubrey Price Tower. Animal life in the buildings is restricted to those species normally associated with houses, mostly insects and spiders. Some of the roof crevices have provided shelter for nesting house sparrows and starlings and feral pigeons roost on ledges, to the annoyance of passers-by. Swallows and house martins occasionally make their nests under the eaves of the older houses on the campus and may often be seen swooping low to catch insects above the playing fields. A pair of kestrels managed to nest on the top of the Tower a few years ago but it is uncertain whether they raised young.

The Gardens

Because of the high level of maintenance the gardens do not offer much to the naturalist in the way of 'weed' species but the great variety of flowers is an attraction to many insects, notably bees, flies, butterflies and beetles. Some years ago several shrubs were completely defoliated by the caterpillars of the winter moth, and eventually died.

The two almond trees are covered each spring with the red leaf-curl galls of a fungus — *Taphrina deformans* — and other garden plants carry rusts and mildews, which provide useful class material!

The density of some shrubberies, including the recently opened-up garden of Seaborne House, gives refuge and nesting sites for many familiar garden birds, notably blackbirds, song thrush, robin, blue tit, great tit and garden warbler.

Less familiar nesting species are mistle thrush and blackcap. The latter now overwinters in Britain in mild seasons, rather than migrating south, and has done so on the campus. The abundance of berry-bearing shrubs in the gardens allows many birds to survive during harsh winters. However, the bird and small mammal life in the gardens is 'controlled' by the activities of the college cats.

The Trees

These are an important feature of the campus both in terms of landscape and shelter and in providing additional habitats for wildlife. Unfortunately few mature trees of truly native species are to be found, with the exception of the crack willows by the canal and scattered birch and ash. The main species, all planted, are common lime, sycamore and horse chestnut, but there are single trees of holm oak, yew and strawberry trees which give a distinctly Mediterranean feel to the area around the chapel. A few beeches, including the dreaded 'copper' variety, and hollies cast so deep a shade that little grows beneath them.

The trees offer shelter to a great variety of birds and wood pigeons, magpies and pied wagtails either nest or roost in them. The large hybrid black poplars to the north of Exton Park feed the caterpillars of the spectacular poplar hawk moth, which often comes into rooms on summer evenings, attracted by the lights.

The bark of the older sycamores near the library has been studied in student projects for some years and has yielded a number of interesting micro-fungi — some unknown elsewhere in Cheshire. Perhaps the most important find was made in September 1985, during a conference of the British Mycological Society, when a toadstool associated with the roots of lime trees, *Russula pectinata*, was found near the library — the first British record — to be followed two days later by a second find in Delamere Forest. The birch trees behind the new pavilion have two impressive autumn toadstools around their bases — the fly agaric, *Amanita muscaria*, which is the well-known mushroom illustrated in children's books as well as being the Divine Soma of ancient religions, and a good, edible bolete, *Leccinum rosefracta*, in its only recorded Cheshire site.

The Playing Fields

The intensive use of the grassed areas together with frequent mowing and other treatments does not allow much flora and fauna to survive, although thrushes are often seen extracting worms from the ground. Occasional outbreaks of the subterranean 'leatherjacket' larvae of crane-flies, attract large numbers of rooks and jackdaws, and even gulls of several species, for a short time.

The plant life of these mowed grasslands is confined to those species which can withstand this harsh treatment — rosettes of plantains, daisies and dandelions, and creeping plants such as clovers and buttercup. Before the all-weather pitch was laid the field to the north of the library was a favourite site for field mushrooms and previous Principals have been known to collect their own breakfast! Another mushroom, still found in the area south of the library is the

liberty cap, *Psilocybe semilanceata*, named after the hats sailors wore when going ashore, but also renowned for its hallucinogenic properties. These, however, are linked to premature ageing, so experimenting with the fungus is unwise.

The Rest

The margins of the site alongside the canal, the triangle of undeveloped land near the railway embankment and the embankment itself are the most prolific areas of the campus. Unmown grasses and tall herbaceous plants, clumps of brambles and a variety of native shrubs contrast stongly with the well managed areas. Here is where most of the wild flowers occur, characteristic of hedgerows or cultivated land. Many traditional weed species thrive whenever the soil is disturbed and poppies, charlock and many other colourful flowers grow for a year or two and are then replaced by coarse grasses, thistles, docks, nettles and rosebay.

The railway embankment has large clumps of comfrey and rosebay, the latter feeding the caterpillars of the beautiful elephant hawk-moth. The brambles here provide dense cover for nesting birds and small mammals, such as the bank vole. The fences in this part of the campus have several climbers on them, the most exciting being the white bryony. This has tendrils which coil in a clockwise direction at one end and anticlockwise at the other, so shortening and pulling the stem closer to its support. The plant is not common in Cheshire and close to its northern limit in Britain. It has poisonous orange berries.

The open land at the north-western corner, leading to the Blacon Brook, used to be rich in tall herbs and grass tussocks. Abundant field voles were regularly hunted by tawny owls which nested in old trees along the Parkgate Road. They were also caught in live-traps as part of studies on animal populations. The many thistles in this area attracted goldfinches, which nested nearby, probably on the edge of the campus. Another plant of this area, now long-gone, was the goat's-beard, which has the most perfect, spherical 'clocks'. This was sometimes infected with a rare smut fungus, known from three sites only in north-west England and north Wales and very uncommon in the south. The dumping of spoil and other rubbish on this site has eliminated this habitat but in its place there are abundant colonists of open ground, such as field pansy, hemp-nettles and poppies.

The land bordering the brook, which is badly polluted, still carries a fine show of lesser celandine, which is not only an attractive harbinger of spring, but also useful as demonstration material for botany classes. The tallest plants here are the giant hogweeds. Originally introduced from northern Italy, this impressive plant has spread along canals and lowland rivers and is common in Chester. Its stems and leaves carry glands which secrete a highly irritant substance which photosensitises human skin. Children who touch this plant blister badly and may have to be treated for severe sunburn!

The small holt of willows is our last habitat and is perhaps the most mature and natural area on the campus. As well as providing shelter for moisture-loving

woodland plants the tree is useful to many birds, including wrens, and winter-visiting siskins, who find food and shelter in the thick, ridged bark of the trunk and large branches. The bark is well fertilised by such birds and this has the effect of neutralising the acid pollution, so here, and in only a few other places in the city, large lichens flourish on the trunks and branches.

A further unusual sight is the large green tassel-like growth which develops instead of catkins in spring and summer. This is a gall caused by a mite, which stimulates the catkin to overdevelop, rather like a plant cancer.

This little wood has from time to time sheltered a passing family of foxes. It is regularly used by rabbits, hedgehogs and moles.

Thus the campus provides both permanent and temporary habitats which can be exploited by suitable plants and animals. As new developments occur transient populations of weeds and their associated insects will give way to flower beds, grass or shrubs and trees, which in their turn will continue to support a variety of life remarkable in its richness and interest.